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10/533,309	01/05/2006	Toshihiko Okamoto	Q87635	4780
23373 7590 01/06/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037				
EXAMINER LOEWE, ROBERT S				
ART UNIT		PAPER NUMBER		
1796				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/533,309

Applicant(s)

OKAMOTO ET AL.

Examiner

ROBERT LOEWE

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 11, 12, 15-26, 77-81 and 83 is/are pending in the application.
- 4a) Of the above claim(s) 4, 5, 11, 15-22 and 78-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 12, 23-26, 77, 81 and 83 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Claim 22 is considered to be withdrawn as it only depends from withdrawn claims. Further, claim 81 is now a previously presented claim, and not a new claim. The status identifier needs to be changed to 'previously presented'. Claims 1-3, 12, 23-26, 77, 81 and 83 are currently pending.

Applicants amendments to the instant claims have caused removal of the previously relied upon 102(b) rejections to Fujita et al. (US Pat. 5,648,427). Further, the previously relied upon 102(b) rejection to Wakabayashi et al. (US Pat. 4,977,228) has been withdrawn.

The previously relied upon 102(b) rejection to Doi et al. (US Pat. 6,207,766) is still maintained as a 102(b) on some, but not all of the instant claims as described in the rejection below. Applicant's amendments to instant claim 1 has not caused removal of the Doi et al. prior art reference.

New grounds of rejection are found below. This Office action is non-final owing to the new grounds of rejection which were not necessitated by Applicants amendments.

Claim Objections

Claim 1 is objected to since organic polymer (A1) is claimed as having silicon-containing functional groups each having three or more hydrolyzable groups on one or more silicon atoms, while at the same time, organic polymer (A1) is claimed as being a trimethoxysilyl or triethoxysilyl group. Applicants should remove the more generic limitation of component (A1) from instant claim 1 for clarity.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 12, 23, 25, 26, 77, 81 and 83 are rejected under 35 U.S.C. 102(b) as being anticipated by Doi et al. (US Pat. 6,207,766).

Claims 1, 77 and 81: Doi et al. teaches room-temperature curable compositions which include polyoxyalkylene-based polymers having a molecular weight of from 8,000 to 50,000 and having hydrolyzable silicon groups (abstract). Doi et al. exemplifies an oxypropylene polymer which is capped on both terminals with trimethoxysilyl groups (polymer P1 of Doi et al.). Doi et al. further teaches that a dehydrating agent such as tetramethoxysilane or tetraethoxysilane (i.e., a silicate, which satisfies component (a) of instant claims 1 and 77) may be added (13:29-30). Therefore, Doi et al. anticipates the curable composition as claimed in instant claim 1.

Claim 12: Polymer P1 of Doi et al. is taught to be prepared via platinum-metal mediated hydrosilylation of trimethoxysilane and allyl-group-terminated polypropylene oxide (example 1). Such a procedure fully satisfies the process steps of product-by-process claim 12.

Claim 23: Polymer P1 of Doi et al. is free of amide segments, thus satisfying the limitations of instant claim 23.

Claims 25 and 26: Working example 59 of Doi et al. employs polymer P1, which fully anticipates the structural requirements of organic polymer (A1) of instant claim 1. Working example 59 also employs the use of vinyl trimethoxysilane as a dehydrating agent. Substitution of vinyl trimethoxysilane for tetra(m)ethoxysilane as taught by Doi et al. would satisfy component (a) of the instant claims as well. Working example 59 of Doi et al. further comprises an aminosilane coupling agent, thus satisfying instant claim 25. Further, the tetra(m)ethoxysilane as taught as Doi et al. would inherently serve as both component (a) of the instant claims, **and** as a dehydrating agent as required by instant claim 26.

Claim 83: Working example 28 of Doi et al. employs polymer P1, which fully anticipates the structural requirements of organic polymer (A1) of instant claim 1. Working example 28 further employs the use of a tin carboxylate (tin 2-ethyl hexanoate), which satisfies instant claim 83.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 12, 23, 24, 26, 77, 81 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakabayashi et al. (US Pat. 4,910,255, which is cited on Applicants information disclosure statement, filed on 7/9/09).

Claims 1, 2, 77 and 81: Wakabayashi et al. teaches a curable composition which comprises an oxyalkylene polymer having silicon-containing functional groups which are capable of crosslinking by forming siloxane bonds (abstract) and a partial hydrolysis condensate of an organic silane monomer, which may be equal to ethylsilicate (abstract, 12:9 and 12:30-32). The oxyalkylene polymers taught in the specification in some embodiments would satisfy the organic polymer (A1) component of the instant claims (10:22-36).

Claim 12: Wakabayashi et al. teaches that the silyl-capped oxyalkylene polymers may be prepared via metal mediated hydrosilylation of a silane of formula (IX) with a polyether having an olefin of formula (X) (10:22-36), which satisfies the limitations of instant claim 12.

Claim 23: The polymers of Wakabayashi et al., when prepared in the manner as taught in 10:22-36, are free of any amide segments along the main chain of the polymer.

Claim 24: Wakabayashi et al. teaches that the silanes which may be used to cap the olefin-functional polyoxyalkylenes may be triethoxysilane (8:16), which satisfies the limitation of instant claim 24.

Claim 26: Wakabayashi et al. teaches the addition of fillers (13:55-58). Included in this list is silica, which is a well-known dehydrating agent, thus satisfying the limitations of instant claim 26.

Claim 83: Wakabayashi et al. teaches the addition of curing accelerators, which include tin carboxylate catalysts (12:64-66).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wakabayashi et al. (US Pat. 4,910,255) in view of Ando et al. (US Pat. 6,703,442).

Wakabayashi et al. renders obvious the curable composition of instant claim 1, as described above. Wakabayashi et al. further teaches the use of tin-based catalysts (12:64-66). While Wakabayashi et al. does not explicitly teach the use of a tin carboxylate wherein the alpha-carbon next to the carboxyl group is a quaternary carbon atom, Ando et al. does teach such tin-based catalysts (7:19-20 of Ando et al.). Tin versatate represents a tin carboxylate which satisfies the limitations of instant claim 3. Wakabayashi et al. and Ando et al. are combinable because they are from the same field of endeavor, namely, curable polyoxypropylene-based compositions useful as sealants and adhesives. Both Wakabayashi et al. and Ando et al. teach the addition of the same tin carboxylate catalysts such as tin octylate. Given the same fields of endeavor of Wakabayashi et al. and Ando et al., it would have been obvious to substitute those tin carboxylate catalysts taught by Ando et al., including tin versatate, for those taught by

Wakabayashi et al. It is *prima facie* obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 340. See MPEP 2144.06. The express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doi et al. (US Pat. 6,207,766) in view of Ando et al. (US Pat. 6,703,442).

Doi et al. teaches room-temperature curable compositions which anticipate instant claim 1, as described above. Doi et al. further teaches the use of tin-based catalysts (10:59-61). While Doi et al. does not explicitly teach the use of a tin carboxylate wherein the alpha-carbon next to the carboxyl group is a quaternary carbon atom, Ando et al. does teach such tin-based catalysts (7:19-20 of Ando et al.). Tin versatate represents a tin carboxylate which satisfies the limitations of instant claim 3. Doi et al. and Ando et al. are combinable because they are from the same field of endeavor, namely, curable polyoxypropylene-based compositions useful as sealants and adhesives. Both Doi et al. and Ando et al. teach the addition of the same tin carboxylate catalysts such as tin stearate and tin naphthenate. Given the same fields of endeavor of Doi et al. and Ando et al., it would have been obvious to substitute those tin carboxylate catalysts taught by Ando et al., including tin versatate, for those taught by Doi et al. It is *prima facie* obvious to substitute equivalents, motivated by the reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re*

Ruff 118 USPQ 340. See MPEP 2144.06. The express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doi et al. (US Pat. 6,207,766), as applied to instant claim 1 above.

Doi et al. teaches room-temperature curable compositions which anticipate instant claim 1, as described above. While Doi et al. does not anticipate the requirements of instant claim 24, such a limitation is nevertheless obvious given the teachings of Doi et al. Specifically, Doi et al. teaches that the hydrolyzable groups are most preferably lower alkoxy groups such as ethoxy (4:12-18), which satisfies the limitations of instant claim 24.

Relevant Art Cited

The prior art made of record and not relied upon but is considered pertinent to applicants disclosure can be found on the attached PTO-892 form.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT LOEWE whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./
Examiner, Art Unit 1796
29-Dec-09

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Supervisory Patent Examiner, Art Unit